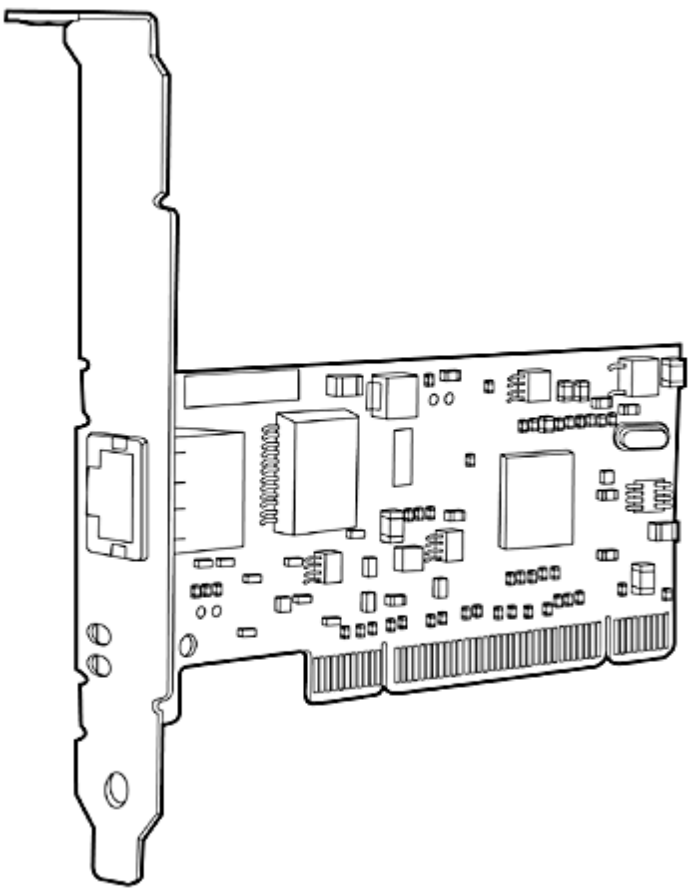
Overview

The NC1020 server adapter is a single-port, copper, Gigabit Ethernet PCI bus adapter that supports basic server functionality. It runs over Category 5 (or better) twisted-pair cabling and is targeted to customers who deploy HP ProLiant 100 and 300 series servers. It is supported in 32-bit PCI, 33/66 MHz slots, comes with 64KB onboard memory, and provides 10/100/1000T auto-negotiated speed and duplex.

The NC1020 has been designed with server needs in mind and offers these server features: Wake-on-LAN, PXE support, as well as link and activity LEDs. Additionally, it supports these IEEE NIC standards: 802.3, 802.3u, 802.3ad, and 802.3ab, 802.1x, 802.1Q and 802.1p.



Models

HP NC1020 PCI 1000T Gigabit Server Adapter	353377-B21

Kit Contents

- HP NC1020 PCI 1000T Gigabit Server Adapter
- CD containing Drivers, User Guide, and Installation and Diagnostic Utilities
- Quick Install Card
- Product Quality Statement
- Product Warranty Statement

NOTE: For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: http://h71028.www7.hp.com/ERC/downloads/4AA0-6064ENW.pdf.

Performance

Gigabit Ethernet Throughput	Up to 1000Mbps Ethernet transfer rate delivers outstanding network performance that improves response time and removes bottlenecks across the entire network.
Load Balancing	Transmit Load Balancing (TLB) and Switch-Assisted Load Balancing (SLB) are two advanced features used to build a bigger pipe for improved networking bandwidth. These port bonding techniques enable users to install up to eight NC1020 adapters in a HP ProLiant server and aggregate their throughput up to a theoretical maximum of 16 Gigabits per second full-duplex transmission. The NC1020 can be configured to work with other NC-series Ethernet server adapter teams supported on HP ProLiant servers, when running under Microsoft Windows, Linux, or NetWare operating systems. If Large Send Offload (LSO) is enabled, the NC1020 can only team in Microsoft Operating Systems with another NC1020 or a NC7761. If LSO is disabled, the NC1020 can team with all of HP ProLiant NC-Series NICs without problems.

Scalability and Reliability

Tri-Speed Support	Because the NC1020 supports 10Mbps Ethernet and 100Mbps Fast Ethernet in addition to Gigabit Ethernet, users are guaranteed end-to-end protocol support across their enterprise. Like all HP server adapters, the NC1020 adheres to open industry standards, insuring that it will work seamlessly with any network devices that also support IEEE standards.
Traditional PCI slot	The NC1020 is specified to run in either 33 or 66MHz PCI slots. If customers want to place it into 64-bit, 66/100/133MHz slots, they can do so with the potential for performance degradation.
Network Fault Tolerance (NFT)	Network Fault Tolerance, sometimes called "failover" or "NIC redundancy", allows for the installation of multiple NC1020 server adapters or other network adapters so that the active device can be backed up by a redundant adapter to improve availability. HP's teaming utility also allows users to specify that when a failed adapter is fixed and replaced, the original adapter resumes its function as the primary network connection. The NC1020 can be configured to work with other NC-series Ethernet server adapter teams supported on HP ProLiant servers, when running under Microsoft Windows, Linux, or NetWare operating systems. If Large Send Offload (LSO) is enabled, the NC1020 can only team in Microsoft Operating Systems with another NC1020 or a NC7761. If LSO is disabled, the NC1020 can team with all of HP ProLiant NC-Series NICs without problems.
PCI Hot Plug	The NC1020 ships with PCI Hot Plug support, which enables it to be replaced or added to a PCI Hot Plug compatible server without powering down the system. This feature provides increased system availability and non-stop serviceability in business-critical computing environments.

Performance

Operating System Support

- 32-bit Windows
  - Microsoft Windows Server 2003 Standard, Web, Small Business, and Enterprise Editions
  - Microsoft Windows 2000 Server and Advanced Server
- 64-bit Windows
  - Microsoft Windows Server 2003 Standard and Enterprise Editions
- Microsoft certified miniport and teaming drivers
- Red Hat Enterprise Linux
- SUSE Linux Enterprise Server
- Novell NetWare 6
- Novell NetWare 6.5
- Novell Open Enterprise Server x86
- SCO UnixWare 7.1.3
- SCO UnixWare 7.1.4
- SCO OpenServer 5.0.7
- SCO OpenServer 6.0.0
- Solaris 9
- Solaris 10
- NDIS 2 for DOS unattended operating system install (43K or less in size)

NOTE: For more Linux OS support & certification information, please visit our the ProLiant & BladeSystem Server Linux matrix: http://h18004.www1.hp.com/products/servers/linux/hpLinuxcert.html

Warranty	**Maximum**	The remaining warranty of the HP product in which it is installed (to a maximum three-year, limited warranty).
	Minimum	One year limited warranty.

Network Management

Auto-negotiation

The NC1020 automatically senses and configures itself to the speed of the device to which it is attached. It also automatically configures for half or full duplex, depending on the duplex mode of the switch, hub, or router at the other end of the cable.

Management Support

Like all HP server adapters, the NC1020 ships with drivers and agents that can be managed from all versions of HP Insight Manger 7, as well as using any management application that supports SNMP.

Server Integration

HP's SmartStart configuration utility includes setup support for the NC1020 so the adapter can be configured as part of the SmartStart configuration process. HP Insight Manager can recognize the NC1020 individually or in port-bonded teams, and can collect and report SNMP statistics on the adapter events. Additionally, Integrated Management Log (IML) support is provided by the NC1020 for critical event logging on HP servers.

Configuration Utilities

Each NC1020 ships with a suite of OS-tailored configuration utilities that allow the user to run initial diagnostics and configure adapter teams for Network Fault Tolerance, Transmit Load Balancing, or Switch-Assisted Load Balancing (Dynamic 802.3ad) in the Windows®, Linux, or NetWare operating systems.

LED Indicators

Bracket LED indicators show link integrity, network activity, and network speed for easy troubleshooting.

Related Options

Additional Gigabit Server Adapters	HP NC110T PCI Express Gigabit Server Adapter NOTE: Does not support Windows 2000.	434905-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter NOTE: Does not support Windows 2000.	435508-B21
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC380T PCI Express Dual Port Multifunction Gigabit Server Adapter	394795-B21
	HP NC7170 PCI-X Dual Port 1000T Gigabit Server Adapter	313881-B21
	HP NC7170 PCI-X Low Profile Dual Port 1000T Gigabit Server Adapter	383738-B21
	HP NC7771 PCI-X 1000T Gigabit Server Adapter	290563-B21
Combo Switch Adapter	HP NC150T PCI 4-port 1000T Gigabit Combo Switch Adapter	367132-B21
10 Gigabit Server Adapters	HP NC510C PCIe 10 Gigabit Server Adapter NOTE: A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510C adapter.	414129-B21
	HP NC510F PCIe 10 Gigabit Server Adapter NOTE: A minimum of 1 gigabyte (1 GB) of server memory is required per each NC510F adapter.	414126-B21

Technical Specifications

Compliance	IEEE 802.3, 802.3u, Dynamic 802.3ad, and 802.3ab, 802.1x, 802.1Q and 802.1p PCI 2.3 ACPI v1.1a		
General Specifications	Communications Processor	Broadcom 5705	
	On-board memory	64KB	
	Data rate	10/100/1000 Mbps, Half- and full-duplex	
	Data path	The NC1020 is specified to run in either 33 or 66MHz PCI slots. Customers may put it into 64-bit, 66/100/133MHz slots with the potential for performance degradation.	
	Interrupt levels	INTA	
	Connector	RJ-45	
	Distance	Up to 328 ft (100 m)	
	Wiring	Category 5 or higher UTP	
	Dimensions (LxW)	4.7 x 2.0 inches (L x W), 11.938 cm x 5.08 cm	
Power and Environmental Specifications	Operating	Temperature	32° to 131° F (0° to 55° C)
		Humidity	5% to 95% non-condensing
	Non-operating	Temperature	-40° to 149° F (-40° to 65° C)
		Humidity	5% to 95% non-condensing
	Power requirement	Operating Voltage: 3.3V +/- 5% Maximum Power Consumption: 2.5 Watts Maximum: 750 mA @ 3V(DC)	
	Emissions Classifications	Class B	
	Agency Approvals	USA: FCC (CFR 47 part 15) and UL 60950 Canada: ICES-003 and CSA60950 Japan: VCCI Korea: MIC (RRL), EMC Registration Australia: ACA, AS/NZS3548/EN55022:1998, EN55024:1998 EU: EN55022:1998 (CISPR 22), EN55024:1998, and IEC60950:1999 (EN60950:2000)	

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.